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Report by the UNCTAD secretariat

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CONTENTS

		Paragraphs	Pages
INTRODUCTION		1 - 3	1
I.	CONCLUSIONS AND POLICY RECOMMENDATIONS	4 - 14	2
II.	CURRENT TRANSIT TRANSPORT SITUATION	15 - 37	5
	A. Southern Africa	17 - 21	5
	B. East-Central Africa	22 - 23	7
	C. West-Central Africa	24 - 29	8
	D. Asia	30 - 35	10
	E. Latin America	36 - 37	11
III.	SPECIFIC PRIORITY AREAS FOR ACTION AND ASSISTANCE	38 - 56	13
	A. Road transport	41 - 44	13
	B. Rail transport	45 - 46	15
	C. Ports and storage facilities	47 - 48	15
	D. Air transport	49	16
	E. Communications	50	17
	F. Documentation and procedures	51 - 52	17
	G. Management and training	53	18
	H. Institutional arrangements	54 - 56	18
IV.	TRANSIT TRANSPORT CONSTRAINTS AND THE BALANCE-OF-PAYMENTS IMPLICATIONS	57 - 59	20
Annex:	Statistical tables		22

Abbreviations

ACIS	Advance Cargo Information System
CBC	Conseil Burhinabé des chargeurs
ECOWAS	Economic Community of West African States
PTA	Preferential Trade Area
DCTD	Road Customs Transit Declaration
SATCC	Southern African Transport and Communications Commission
TAZARA	Tanzania Zambia Railway Authority
TRC	Tanzania Railways Corporation
TRIE	Transport routier inter-états

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INTRODUCTION

1. The international community continues to view with deep concern the particular problems faced by the land-locked developing countries linked to their geographical handicaps. Not only are they land-locked but many of them also figure among the least developed countries - their economies are clearly vulnerable to trade imbalances. Although the difficulties of being land-locked permeate every aspect of the development process, their impact on the evolution of external trade is particularly severe. 1/ The additional transport costs which land-locked countries must bear constrain export development, since this burden limits the range of potential exports and markets in which goods can be competitively and profitably traded. The price of imports tends to soar owing to high transport costs. Lower export earnings and increased costs of imports tend to have an adverse effect on the terms of trade of land-locked countries. Indeed, it may be assumed that these countries will generally be the hardest hit under the mounting pressures of the worsening terms of trade for the developing countries as a whole. Furthermore, the fact that land-locked developing countries may be required to pay for transit services in foreign exchange negatively affects their balance of payments.

2. It is in this perspective that the General Assembly and the United Nations Conference on Trade and Development have continued to reiterate their appeal for increased financial and technical assistance to these countries. In order to mobilize such assistance it is essential that the awareness of the distinct nature and evolving dimension of the particular problems of land-locked developing countries be further fostered. Accordingly, in its resolution 44/214, the General Assembly, commending the report on the geographical disadvantage of land-locked developing countries submitted at its forty-fourth session, requested the Secretary-General of UNCTAD to prepare another report for submission to it at its forty-sixth session. Parts I, II, III and IV of the present report have been prepared in response to this request.

3. Part I below highlights some of the basic conclusions emerging from the analysis made and suggests policy options which land-locked countries and their development partners should endeavour to pursue. Part II presents a brief assessment of the current transit-transport situation in the various regions and subregions. It provides some insight into recent developments and problems facing individual land-locked developing countries. Drawing from the above review and analysis, Part III selectively outlines further action in specific priority areas in the transit transport sector to be taken both by the individual countries themselves and the international community to improve the situation. Part IV offers a comparative analysis of the balance of payments accounts of land-locked developing countries, demonstrating how a large part of the foreign exchange earnings of such countries is absorbed by transport costs because of their geographic situation. Addendum 1 to this report was prepared in accordance with paragraph 12 of Conference resolution 137 (VI), in which the Secretary-General of UNCTAD is required to keep under constant review the progress in the implementation of specific action related to the particular needs and problems of the land-locked developing countries, as set out in that resolution, as well as in Conference resolutions 63 (III), 98 (IV) and 123 (V). The contents are based on the

replies received from Governments, international organizations and intergovernmental organizations, as well as on UNCTAD's own work on the development of land-locked countries.

I. CONCLUSIONS AND POLICY RECOMMENDATIONS

4. During the 1980s, land-locked countries had pursued three basic objectives with regard to transit transport. Firstly, they had sought to reduce the costs of transit transport through investment in facilities and measures to improve the quality of operational services in transit transport corridors. Secondly, they had sought where possible to diversify their transit routes and to reduce dependence on the facilities of a single coastal country. Thirdly, they had promoted the development of their indigenous international transport services sector. These efforts have sometimes, as in southern Africa, been supported by international assistance and coordinated on a regional basis. Where they have been founded on cooperative relations between land-locked and coastal countries, major improvements have come about in the transit transport situation. In some coastal countries, complex, clumsy documentation procedures and security systems have been replaced by a simple transit pass, a "carnet" for transit transport, along with thorough and proper sealing of consignments in transit. A regional approach which promotes the integration of transport infrastructure, ensuring port capacities and facilities sufficient to meet the needs of both land-locked and coastal countries, and furthers inter-railway agreements through regular meetings, has been successfully elaborated through the wlrk of the Southern African Transport and Communications Commission (SATCC). A novel institutional mechanism which coordinates international transport on a corridor basis and which combines public and private sector involvement has also been devised for the Beira Corridor linking Zimbabwe and the Mozambican port of Beira.

5. While progress in such instances has been made, there are generally still major deficiencies in the overall transit transport systems which mean that producers and consumers in land-locked countries are more adversely affected by the uncertainties of transit transport than is necessary. Major issues which require attention are briefly recapitulated below.

6. The **deterioration of transport infrastructure** is a general problem which affects land-locked and coastal countries in Africa, Asia and Latin America. It is associated with the fiscal crises, which accompany economic recession, seriously undermining the financial capabilities of Governments to maintain facilities. This is compounded, inter alia, by lack of organizational capabilities, a misallocation of funds between new construction and maintenance; and overuse of facilities, particularly roads. The latter is largely owing to inadequate enforcement of laws regarding truck loading or simply because old facilities have come to the end of their design life. Therefore, **special attention will have to be given to the maintenance of existing facilities and to their effective utilization.** Development budgets should more deliberately focus on the provision of spare parts, tools and building materials so as to keep up a high level of maintenance of existing facilities for their better utilization. In some land-locked countries, the maintenance burden is simply so great that there will be a need for external financial assistance.

7. It is, however, not enough to maintain transit transport facilities. With major changes occurring in the organization of international transport at a global scale, new investments must be made particularly with regard to containerization since very frequently inefficiencies in transit corridors result in longer transit times which in turn mean that container turnaround times required by shipping lines cannot be ensured. Facilities for handling containers also need to be extensively built up. Communications facilities are required to facilitate advance knowledge of transport service availabilities and to ensure smooth and speedy transit.

8. Both coastal and land-locked countries adopt protectionist measures which hamper trade in transit-transport services at a regional level and increase the costs of transit transport services. Protectionist policies, usually administered through a permit system or an allocation procedure, apply particularly to road transport services. For land-locked countries, such policies have been seen as a way of increasing the local multiplier effects, in terms of both income and employment, of saving foreign exchange, and of reducing vulnerability to transport shocks. For coastal countries, such policies enhance incomes and employment and provide particular benefits for the road haulage lobby. But the increased costs associated with protectionism decrease the total volume of transit traffic and thus, while supporting sectoral interests, are counter-productive. In general liberalization of trade in transit transport services at a regional level is an important goal which sets a framework for free competition in the transit transport industry and ensures a higher quality of services at reduced cost.

9. In order to encourage more efficient transit transport systems, some institutional arrangements have been promoted within the framework of regional transit regimes. These regimes, to which both land-locked countries and transit countries adhere, are based on agreed sets of rules governing the passage of transit traffic. They are particularly important for land-locked countries. Despite agreement on transit regimes often they are not implemented in practice, however. In some regions, transit States, rightfully exercising full sovereignty over their territory, have sought to ensure that the rights and facilities provided for land-locked countries do not infringe on their own legitimate interests. This has sometimes led to the imposition of tight and time-consuming security systems to prevent smuggling, for example. In some regions, economic recession and other financial pressures have meant that the problems of land-locked countries' transit traffic are neglected as being low on the list of priorities. The spirit and intent of subregional and regional agreements thus loses momentum and economic significance.

10. It is important that subregional and regional working arrangements are founded on the fact that they can benefit both land-locked countries and coastal transit countries. There is a need to recognize, and make transparent, both the benefits and costs to coastal transit countries of transit traffic in such arrangements. Furthermore, the establishment of transit regimes on a bilateral (corridor) basis or on a regional basis should respect the principles of non-discrimination and cost-effectiveness. It is also important that in instituting cooperation arrangements, a pragmatic approach, focusing on specific tasks and particular projects, be adopted

because it is likely to be more viable. Such an approach also offers a more adequate planning framework for achieving the long-term objective of establishing effective overall regional economic groupings. The work of SADCC is an example in this regard.

11. The cost implications of many intercountry transit transport investment projects are often of such a magnitude that the countries involved cannot bear the burden alone. **External assistance by donor agencies** should therefore continue to serve as a catalyst by supporting programmes that promote cooperative arrangements. The United Nations Transport and Communications Decade programmes in Africa and Asia have been making important contributions in this direction. Available data, however, indicate that official development assistance commitments to all land-locked developing countries earmarked for the transportation sector still constituted only around 10 per cent in 1989. Donor agencies in supporting these programmes should also take into account the particular adverse circumstances of the land-locked countries and apply deliberately concessional and flexible criteria in their funding policies.

12. The ratification and implementation of **international conventions** related to transit transport remain a valid mechanism. Adherence to such conventions provides a framework for resolving many bilateral and subregional conflicts affecting transit transport operations. Donor agencies should, where feasible, also use their influence to ensure that the transit transport programmes they support take into account the safeguards embodied in existing international conventions such as the United Nations Convention on the Law of the Sea, the 1965 Convention on Transit and Trade for Land-locked States and the Customs Convention on Containers of 1972.

13. Land-locked countries should adopt **development strategies** that maximize economic linkages among and between various economic sectors as part of the longer-term effort to reduce the disadvantages inherent in their geographical location. It is important in this connection that land-locked countries seek ways of increasing local value added before export. Export priorities should concentrate on elements where the multiplier effects are greatest. Cost implications of the current very low export levels are such that these countries cannot take advantage of low backhaul transport charges because of the extreme unidirectional imbalance in transit traffic of land-locked countries, with import volumes far exceeding export volumes. Furthermore, greater support should be given to projects geared towards local production of high-value, low-bulk exports and the import substitution of low-value, high-bulk products.

14. Transit transport facilities can be more effectively utilized by improving the **managerial capacity and skills** of the personnel involved in transit operations. It is therefore necessary to carry out more detailed surveys to identify the specific training needs in each country at the different levels. The training programmes should include the training of instructors and the provision of training materials. Where training requires foreign experts, it would be desirable to team them with local counterparts so as to ensure a smooth transition to a self-reliant manpower development path.

II. CURRENT TRANSIT TRANSPORT SITUATION

15. The activity of providing transit transport services is a complex one. It depends on a range of actors, both private and public, and includes nationals of land-locked countries and non-nationals. The supply of transit transport services requires: (a) physical infrastructure (roads, railways, port installation, warehouses, etc.) (b) telematic infrastructure (facilitating transborder data flows); and (c) a range of services associated with the physical movement of goods (freight haulage, clearing and forwarding, insurance, packing, and financing). Part of the physical infrastructure is "embedded in the land" on the territory of transit countries. The essence of the transit transport problem of land-locked countries is that they have no sovereign access to the sea.

16. This situation poses a number of difficulties. The transport policies of the neighbouring coastal countries are quite naturally aimed at furthering their own domestic interests. Transit transport is logistically complex. This is so because of the long distances to be traversed - over 1,000 kilometres for 11 of the land-locked developing countries. 2/ In addition, transit through foreign countries creates further organizational problems. Various delays can arise as transit countries quite legitimately seek to assure their security interests. While hinterland regions in coastal States may be remote from ports and expensive to reach, at least their transportation problems are not compounded by the political and administrative hurdles that can arise in transit passage through a foreign State. The current transit transport situation facing land-locked countries varies by corridor and by region, but certain common problems may be identified.

A. Southern Africa

17. The southern African region includes six land-locked countries - Zambia, Zimbabwe, Malawi, Lesotho, Swaziland and Botswana. The ports which should be available for transit traffic are: Durban, Richards Bay, Port Elizabeth and Cape Town (all in South Africa); Maputo, Nacala and Beira (in Mozambique); Dar es Salaam (Tanzania); and Lobito (Angola). Because of the political situation in southern Africa, the port of Lobito has been closed since 1975; since the early 1980s the Mozambican ports have usually also been closed; the corridors leading to the latter are under constant threat of attack by insurgents. The Maputo line from Zimbabwe and the Nacala line from Malawi are presently being rehabilitated and re-opened but progress is slow.

18. In the late 1980s, **Zambia** pursued a policy of shifting transit traffic away from South Africa. About 85 per cent of the main export - copper - was transported via Dar es Salaam and 15 per cent via Beira in 1988. This policy has, however, been achieved only at high economic costs. A major problem for importers and exporters in Zambia has been congestion in the Dar es Salaam corridor. The congestion is manifested in long transit times. Copper transported by rail from the Copperbelt to Dar es Salaam was taking 32-36 days in April 1989. At that time 37,000 metric tons of copper was in transit between the mines and the port. For imports transit, delays were even longer. A sample of 400 containers imported by two major freight forwarding companies between June 1988 and March 1989 showed that the average transit

time from the date the ship arrived in Dar es Salaam to the date the container reached Lusaka was 77 days for consignments carried by rail, and 51-53 days for consignments carried by road. Of this time, 43 days was spent in the port after the ship's arrival. One of the causes of the congestion in the Dar es Salaam Corridor was inefficiency in port operations. Now the situation in this regard has improved considerably. Capacity constraints remain on the TAZARA railway, and there are severe operational difficulties in Zambia Railways. The latter are associated with foreign exchange constraints, a critical shortage of locomotives, unmaintained track, and problems of managing a railway system with a strong unidirectional imbalance in traffic flows. Congestion had also been compounded by the seasonal bunching of arrivals of bulky imports (especially fertilizer, wheat and maize).

19. More than 95 per cent of **Malawi's** export and import traffic used to go through the ports of Beira and Nacala in Mozambique, mainly hauled from there by rail. In 1982-1983, insurgency activity forced closure of these routes and traffic had to be diverted via South Africa. The shortest route to Durban (South Africa) is 2,500 kilometres. It entails passing through three other countries. In 1987, some 550,000 metric tons (63 per cent of all Malawi's imports and exports) was transported by this route, with insurgents sometimes disrupting the Tete Corridor leg of this route, requiring a further detour through Zambia thus adding 1,177 kilometres to the journey. An important development for Malawi has been the opening of the "Northern Transport Corridor" through the port of Dar es Salaam. This $US 113 million investment project has entailed rehabilitation and improvement of roads in Tanzania and Malawi, construction of Malawi cargo centres at Dar es Salaam and Mbeya for handling dry cargo and fuel, procurement of tank wagons and tank containers, acquisition of a container vessel to provide a regular service between Chilumba and Chipoka ports on Lake Malawi, and upgrading these ports to achieve an efficient container- and fuel-handling capacity.

20. Botswana, Lesotho and Swaziland are almost entirely dependent on ports in South Africa for their trade routes. For **Lesotho**, which is completely surrounded by South Africa, this is inevitable. For **Botswana**, the southern part of the country is closest to ports in South Africa, and these are ports used for the main overseas exports (beef and copper-nickel matte). Botswana's main export, diamonds, is air-freighted. **Swaziland**, like other countries in southern Africa, has experienced major disruptions in its transit traffic since the early 1980s. At that time, Maputo was the port used for about 67 per cent of the country's overseas imports and exports. By the late 1980s, the only commodities using the port were bulky, low-value goods being shipped on a limited scale - some of Swaziland's sugar and coal. Other exports, including pulp and also some new manufactured exports, such as decorative timber shelving, were being exported via South Africa. The Swaziland sugar industry has sustained heavy financial losses because of increased diversions of sugar exports away from Mozambique. **Zimbabwe's** transit traffic passes through ports in South Africa: Maputo and Beira. The Beira Corridor has been kept open with army protection. A novel institutional mechanism for coordination of transit traffic in the Beira Corridor has been set up - the Beira Corridor Authority and the associated Beira Corridor Group - which is working well.

21. The Southern African Transport and Communications Commission (SATCC) has formulated an investment programme of over $US 4,000 million; aid commitments have helped to rehabilitate railway lines and ports, easing capacity constraints on the transit system. However, the transport system of South Africa has been highly regulated; preference is given to traffic on railways, thus effectively excluding foreign road hauliers. Changes occurring in the road permit system are opening some new opportunities for the road haulage sector in Botswana, Swaziland and Lesotho, although the standards required in the new licencing system mean that vehicle management and driving skills will need improvement. These countries have also made major efforts to build and expand their indigenous road haulage industry.

B. East-Central Africa

22. The transit routes used by Uganda, Burundi and Rwanda focus on the ports of Mombasa and Dar es Salaam. The distribution of traffic between the routes had varied throughout the 1980s, as transporters and Governments responded to changing conditions and the problems associated with the civil strife in Uganda, the political conflict between Burundi and Rwanda, and the periodic political tensions between Uganda and Kenya. A major aim of the Governments of the land-locked countries has, therefore, been to diversify transit routes in order to provide transit security. With regard to transit regulations, all transit goods in the Northern Corridor linking the land-locked countries with the port of Mombasa have to be transit bonded. Depending upon the commodity, the bond can add 1 to 2 per cent of c.i.f. value to the cost of transit. The fact that goods have to be transit bonded in each country means that the potential benefits associated with the introduction of a harmonized Road Customs Transit Declaration (RCTD) are not being realized. This had been a major outcome of the Northern Corridor Transit Agreement achieved with the help of UNCTAD. Clearing and forwarding (C/F) agents estimate that it takes 24/25 different stamps on documents and 10/12 days to clear goods out of the port ready for onward transit, while it should take only two days.

23. Within the Central Corridor linking the land-locked countries with the port of Dar es Salaam, transit goods are carried under a transit pass which is cancelled when goods leave Tanzania and transit containers are not opened or inspected at Dar es Salaam. Efficiency at the port also increased in the late 1980s. The major problems in the Central Corridor routes are: (a) the urgent need for rehabilitation of road and rail infrastructure, and extra storage facilities for containers at the port, and (b) there are capacity constraints which limit the effectiveness of Tanzania Railways Corporation (TRC). TRC has, for example, only 30 specialized wagons to carry containers. In terms of infrastructure, many projects are in place to rehabilitate and up-grade roads, railways and terminals. The European Economic Community is considering the provision of transit block trains for the transit traffic in the Central Corridor. The maintenance of infrastructure is of major importance. For roads, overloading of trucks is all-pervasive. The imposition of axle load limits will help.

C. West-Central Africa

24. Mali has three main transit transport routes. The two most important are a rail line from Dakar to Bamako, and a road from Abidjan. The third route is by road from the port of Lomé, through Burkina Faso. Both Abidjan and Dakar are considered to be efficient ports, but customs procedures continue to be slow in Abidjan, and coordination problems between the parastatals (Entrepôts Maliens - established to act as transit facilitators and storage depots) cause further delays. By the late 1980s, improved coordination between the national railway companies of Mali and Senegal, and new rolling stock and motive power had improved the efficiency of the rail route from Dakar but tariffs remained relatively high. For international traffic, Senegalese rates have been almost 10 times higher than those charged in Mali. On the road route from Abidjan, trucks have to negotiate as many as 25 unauthorized road blocks, which consumes time. Côte d'Ivoire has not implemented the TRIE (Transport routier inter-etats) convention which, like the European TIR system, consists of a "carnet" exempting the bearer from a physical check at the border post. Instead, there is a cumbersome documentation procedure. Truck tariffs are set by government decree. In the late 1980s official rates were below variable costs. Truckers, partly as a consequence, overloaded their vehicles, leading to higher fuel consumption, faster road deterioration, and greater wear and tear of vehicles. Furthermore, all transit trucks must travel in convoy with an escort. Current policy is based on a bilateral convention signed both by Mali and Côte d'Ivoire in 1975 which stipulates that two-thirds of the traffic by tonnage should be carried by Malian truckers, and one-third by Ivorian truckers. This policy has had a restrictive impact on free competition and thus on the quality and cost of services.

25. Burkina Faso currently uses three main transit transport routes - Ouagadougou-Bobo-Dioulasso-Abidjan by rail; the same route by road; and Ouagadougou-Lomé by road. Of the transit traffic, increasing proportions have throughout the 1980s been carried through Lomé (44 per cent). Rail transport accounts for 50 per cent of Burkina Faso's international traffic. Transit times to Burkina Faso for imports from time of arrival in port are 11 days via Lomé, 18 days via Abidjan by rail, and 17 days via Abidjan by road. The port, railway, and road infrastructures are generally in good condition. There are no capacity constraints, but there is some need for investment in infrastructure which would co-facilitate the logistics of transport - such as container terminals and storage areas. Competition between the corridors acts to keep costs down. Container traffic is growing and Abidjan is better equipped to handle it. More regular shipping lines also stop at Abidjan.

26. There have been management problems in the rail route from Abidjan since the management of the railway line was split into two separate national components. The same delays affecting road transport to and from Mali also apply to Burkina Faso's traffic. The "Conseil Burhinabé des chargeurs" (CBC), which is represented both in Abidjan and Lomé is responsible for regulating the transit traffic operations through the two ports. The CBC has a comparatively good performance record, particularly in coordinating the various functions of all the actors involved in transit operations.

27. **Niger** has three major transit transport routes: (a) the route from Cotonou by rail to Parakou and thence by road to Niamey and other destinations in Niger, (b) the route from Lomé by road to Koupéla in Burkina Faso and then eastward to Niamey, and (c) the route via Sokoto to Lagos. The last route is shorter for Eastern Niger than the Cotonou route. Of the transit traffic, 67 per cent is transported via Cotonou, 23 per cent via Lomé, and 10 per cent via Lagos. The port railway and road infrastructure is now generally in good condition with the capacity to meet traffic needs in the immediate future. Some sections of the road parallel to the railway through Benin, however, needs a bitumen surface. At present, only refrigerated trucks are allowed to go from Cotonou to Niamey direct. Journey times are not unduly long. Customs procedures in both Benin and Togo do not usually hold up the goods for more than two or three days. In 1987, Burkina Faso, however, suddenly imposed a 4 per cent guarantee bond, which affected high value imports in particular. Furthermore, there has been a widespread practice of vehicle escorts and many unwarranted stoppages of trucks along the roads. Transit through Nigeria is hampered by the absence of a satisfactory working agreement with the Nigeria Federal Government on transit traffic. Overall there has been a major unidirectional imbalance in Niger's transit traffic through both Cotonou and Lomé.

28. **Chad** has virtually only one route to the sea - through Cameroon to the port of Douala, by road or a combination of road and rail. While there are other potential routes through Nigeria, there is no transit agreement between Chad and Nigeria and certain types of traffic are prohibited. The road infrastructure along the corridors is in need of significant improvement. The main constraints on traffic are delays in the port of Douala, repeated official and unofficial stopping of vehicles on the road in Cameroon, and time-consuming documentation procedures. Transit times from arrival in Douala port are estimated to be 30 to 53 days for combined rail-road transport, and 29 to 53 days for road only transport. In September 1989, a national freight office (Bureau national de frêt) was established to regulate transit operations. It also has a statistical and tax-collecting role. The greatest weakness of Chad's present position is, however, its virtual dependence on a single route.

29. **The Central African Republic** is served by two principal overland transit routes. The traditional transit route is the trans-equatorial route, a rail/river route via the port of Pointe Noire. This involves river transport for 1,300 kilometres over the Oubangui and Congo rivers to Brazzaville and then by rail to the port. The second route is by road, or rail and road to the port of Douala in Cameroon. On the Douala route there are no serious physical constraints. The railway to Belabo and Ngaoundéré has ample line capacity, but there are deficiencies in transhipment facilities at Belabo. Roads are in good to fair condition, but there are some main roads in eastern Cameroon which require enhanced maintenance. On the Pointe Noire route, the Oubangui River is a serious physical constraint. Navigation is closed for four months of the year, from February to May, and restricted for two months after this period. Water levels on the river have been declining and this trend is expected to be aggravated by the construction of a power dam over the Zairian portion of the Oubangui River at Mobaye. There are

operational problems on both routes which result in long journey times. Clearing customs at the seaport takes 20 to 40 days in Douala and 5 to 10 days in Pointe Noire. The average transit times by the Douala route is 28 to 63 days (road/rail) and 27 to 62 days (road only), and by the Pointe Noire route it is 24 to 36 days. On the Douala route, there is also the additional requirement that vehicles must have escorts.

D. Asia

30. The land-locked developing countries of Asia are Afghanistan, Bhutan, Lao People's Democratic Republic, Mongolia and Nepal. The major corridors for trade and transit transport used in the past for **Afghanistan** have been: (a) through the USSR by using the northern ports of Hairaton, Sherkhan Bander, and Turghundi, all linked by the Soviet Union railway network to their western, northern and eastern sea ports; (b) through Iran by railway from the Iranian border to the Persian Gulf ports of Bandar Abbas, Bandar Shaheur and Khorramshar - this route also affords direct road access through Turkey overland to Europe; (c) through Pakistan by the port of Karachi linked by railway to the Khyber Pass road to Peshawar and the south-east road to the border point of Chaman where the goods are transported by trucks to Afghan border points. Owing to the political difficulties which exists between Afghanistan and Pakistan and the inadequate infrastructure and services along the route to the sea, there are now a number of problems with the use of the port of Karachi, in particular congestions and shortage of wagons for carriage of Afghan imports and exports.

31. Most of **Bhutan's** imports and exports are with India. Third-country exports, mainly fruit, are transported to Bangladesh; in future there may be shipments to Thailand. Good relations exist between the Indian and Bhutanese authorities, and both imports and exports flow smoothly without unduly long delays.

32. The two principal ports used by the **Lao People's Democratic Republic** for international trade are Bangkok (Thailand) and Da Nang (Viet Nam). Generally trade with the former CMEA countries passes through Da Nang and with other countries through Bangkok. For cargo transiting through Bangkok, the most significant delays occur with import cargoes in the port. Port of Bangkok procedures require that goods first be delivered to general customs storage areas and then subsequently to bonded in-transit warehouses. Substantial storage and demurrage charges are therefore incurred. Cargo is stored until it is reloaded on to Thai trucks or the railway for Bangkok. Transit through Viet Nam has been difficult because of the poor condition of east-west roads as a result of user damage. Although repairs to the route linking the port of Da Nang to the southern region of Laos have been completed, the movement of goods along this route and through central and northern Laos is still hampered by poor roads and the fact that navigation on the river route is restricted for three to four months of the year. There are also serious shortages of experienced managers and skilled technicians.

33. The overwhelming proportion of **Mongolia's** exports and imports are with neighbouring China and the USSR. Transit traffic is carried by rail through Ulan-Ude to the Trans-Siberian line where goods are moved eastward to the port

of Nakhodka, a total distance of about 4,650 kilometres, or westwards to the port of Leningrad, a total distance of 6,450 kilometres. The alternative route is through China where the closest port is Tien-tsin, 1,600 kilometres away. Goods must be transshipped at the border because Mongolia has a different railway gauge than China. Improved facilities are also required.

34. The trade and transit treaty between India and Nepal provides the framework for the regulation of the movement of the bulk of Nepal's transit cargo to and from third countries. Nepal experienced transit difficulties when the old trade and transit treaty expired in March 1989. However, in June 1990, the two Governments agreed to restore, as of mid-1990, the status quo ante to 1 April 1987, relating to the movement of goods in transit through India to and from Nepal pending the finalization of new arrangements. Transport costs incurred by Nepal, however, continued to be particularly high as road is the main mode of transport, partly owing to the fact that goods have to be transferred between medium and narrow gauge railways en route. Generally, the cost of moving transit cargoes within Nepal is higher than expected, owing to the poor condition of the vehicle fleet, the absence of vehicles with more than 10-ton capacity, the poor state of road maintenance and the under-utilization of the Hetauda to Kathmandu ropeway. A project to improve the border facilities and upgrade management and training has been prepared for financing by the World Bank. Most of the trucking between Calcutta port and Nepal is handled by Indian transporters. They have ample capacity and are allowed to pick up backhauls of freight within India.

35. Air freight has become important for Nepal. The volume of air freight handled at Tribhuwan International Airport was 7,700 metric tons of exports (mainly carpets and clothing) and 7,800 metric tons of imports (mainly high-value goods) in 1988. The major bottleneck for exports is the transfer of goods by customs vehicles from warehouses to cargo hangers where loads are prepared by the various airlines for each flight. For imports, customs clearance is a major bottleneck. An Airport Master Plan has proposed new facilities, especially for storing and retrieving cargoes.

E. Latin America

36. The main ports used by Bolivia's overseas trade are Santos in Brazil, Rosario and Buenos Aires in Argentina, Arica and Antofagasta in Chile and Matarani in Peru. The port of Ilo, with road access, is seldom used because of regular interruptions during the rainy season. The Paraguay River, which touches the Bolivian frontier in the south-eastern corner of the country at Puerto Busch, is a potentially important international route for goods transport. This route would be considerably cheaper than the alternative road or rail. However, at present, the volume of Bolivian traffic using the river is small. More than half of Bolivia's transit traffic passes through the Pacific ports, mostly with access by rail, partly because of the general unreliability of road transport and partly owing to the definite advantages which rail offers on such long hauls. Less than one-third of the road surface to Arica and less than one-sixth of the road to Antofagasta is paved. Air transport is of growing importance, and in 1988 about 57 per cent of Bolivia's exports to the United States of America (in value terms) was by air. As part of the international effort to promote greater understanding of the particular needs and problems of land-locked developing countries, the Center for the

Study of International Relations and Development (CERID) based in La Paz in Bolivia has prepared a project to be funded by the Group of 77. Its objective is to carry out an in-depth review of the actions taken by the international community in favour of these countries. The project is being executed by the Office of the Chairman of the Group of 77 under the UNDP Government Execution procedures.

37. Most of Paraguay's overseas trade is via Buenos Aires. The Parana and Paraguay rivers are also used. There is a problem of shoals on the upper reaches of the Paraguay river, near Asuncion, particularly during the period November to February. This hampers the navigation of large ocean freighters and often limits small river boats also. Inadequate night signalling facilities along the river are also a problem. Although transit facilities in Latin America are more developed than in the African and Asian regions, a major problem for the Latin American land-locked countries is the inefficiency of ports. Management problems, and the poor response to the need to introduce innovations in cargo-handling, have adversely affected past performance.

III. SPECIFIC PRIORITY AREAS FOR ACTION AND ASSISTANCE

38. In designing action and assistance programmes to reduce the transit-transport problems of land-locked countries, certain general principles must be followed. Firstly, to be effective programmes must take into account the requirements of importers and exporters. Businesses engaged in international trade view transport as a logistics problem intimately linked to their production and marketing schedules. Transport costs are, of course, an important consideration for sustainable trade, but critical service standards are also relevant, particularly: (a) speed of transit - average transit time, shipping frequency, loading rates in port; (b) certainty of transit - transit time variability, protection from pilferage, damage and contamination; and (c) control of transit - reliability of information about conditions in port, ease of communications, probability of unexpected problems (e.g. electricity failure), and capacity to resolve problems if they arise. Import and export businesses also view the whole transport chain in a systemic way; thus ocean shipping and overland transport are considered together.

39. Secondly, it is important that programmes be flexible, in the sense that they are responsive to change. At present there are major innovations occurring in the organization of international transport and it is vital that the land-locked countries take advantage of the new opportunities which these changes create. The most important changes are those associated with containerization and improved communications. It is in these areas where investment in new facilities is urgent. Human resources development is also a critical factor in the adaptation process.

40. Thirdly, to be acceptable, programmes must recognize the interests of both the land-locked and the coastal transit countries. For the latter, transit traffic can bring important economic benefits. For example, in 1987, Kenya's revenue from transit traffic was in the order of $US 80 to 95 million, equivalent to 45 per cent of the value of Kenya's tea exports; Tanzania's revenue from transit traffic was $US 29 million. Mali's transit traffic was estimated to have generated $US 30 million for transit countries in the late 1980s. At the same time, transit traffic entrains costs for transit countries. Inevitably there is the cost of usage of transport infrastructure. Action and assistance programmes must take into account the interests of both land-locked and coastal countries, as transit-transport policy requires cooperation. Fourthly, to be sustainable the action and assistance programmes must include the development of financial and institutional capacities for maintenance. Without maintenance, the benefits of investment programmes quickly fade.

A. Road transport

41. Road transport is of increasing importance as a mode of transport for the imports and exports of land-locked countries; it is particularly vital if new high-value exports are to be developed. The organization of transit transport by road poses particular difficulty. The question of vehicle user charges is hard to resolve within just a single country. It becomes particularly complex when vehicles from one country are using another country's infrastructure. A range of road user charges is normally set on international traffic carried by

non-national hauliers. These include road service licences/permits, entry fees, foreign commercial licenses, transit goods licenses and road tolls. Such charges may be subject to sudden alteration and normally bear little relation to actual costs. 3/ Ideally, user charges should be related to the costs associated with the use of roads; revenues realized from payments made by transit traffic should go to maintain and improve the respective highways so as to minimize vehicle operating costs; no other charges should be imposed on transit traffic. This approach is the one advocated by the Preferential Trade Area (PTA) for East-Central and southern Africa.

42. Alongside efficient and equitable transit tolls, it is necessary to establish axle load restrictions with appropriate enforcement mechanisms. At present, road deterioration is accelerated by widespread overloading. Axle load restrictions often exist, but are circumvented through informal payments to enforcers, splitting of loads between vehicles before weigh points, use of minor roads to avoid weigh-bridges and political pressure from the trucking lobby.

43. Another area of action in road transport concerns protectionist measures which both land-locked and coastal countries have used to develop their international road haulage sectors. Protectionist measures are evident in unilateral decisions to use road permit systems to disallow road hauliers of land-locked countries operating in coastal countries, and vice versa. They are also evident in bilateral transit agreements, such as those in the Sahelian zone, in which transit traffic by road is allocated between road hauliers from the land-locked and coastal country on a strict ratio. There is also a strong temptation for governments of land-locked countries to use an array of regulatory mechanisms to protect and develop a national road haulage sector. If routes through an alternative country exist, the land-locked country is then not dependent on one coastal country. This improved security and reduced vulnerability to transport shocks can only be gained at a cost, however. Protectionist policies are likely to engender retaliatory measures. It is important that both land-locked and coastal countries encourage the liberalization of trade in road transport services. Ideally action to achieve this should take place within the framework of regional cooperation agreements. This issue is further discussed below under section H on institutional arrangements.

44. A final problem area associated with road transport is security. The transit country has the right to ensure that transit goods are not diverted for use in the transit country, and to impose reasonable requirements to secure this. For road transport, this is more difficult than in the case of rail transport, as the former is often undertaken by private sector operators or many operators rather than a single national railway authority. Unfortunately, solutions, such as requiring lorries to be escorted in convoys, may create costly delays. Transit bonds are often posted when goods are conveyed by non-government transport. There is no ideal answer to the problem. However, it is important that coastal and land-locked countries work together to establish regional or corridor transit regimes in which security regulations are not excessive and not used to slow down transit traffic. Action on documentation and procedures will be valuable (see section F below). Also, the potential advantages of containers, which can move from port to destination under customs seal, needs to be recognized and realized.

B. Rail transport

45. For rail transport, locomotives, rolling stock, tracks and other physical infrastructure are usually under single ownership and management, usually an agency of the national Government. The past 30 years has also seen the monopolistic position of railways threatened by the development of road transport. The flexibility and speed of road transport has meant that it can usually capture much of the traffic except long distance haulage and bulk freight, unless the rail system is protected. With the development of road transport, many railways have run at a deficit. Furthermore, in countries lacking foreign exchange, their operational performance has declined as necessary maintenance has not been undertaken, and provision of spare parts has not been timely. There have also been managerial difficulties. These problems have affected the rail transit traffic of land-locked countries. Moreover, as railways are normally national authorities, there have also been the additional problems associated with establishing inter-railway agreements, covering working practices, hire and interchange arrangements for rolling stock and other equipment, and through-booking arrangements resulting in reciprocal collection of railway charges. These problems of inter-railway cooperation have been particularly acute in certain situations, such as in Burkina Faso and Cote d'Ivoire, Senegal and Mali, and Zambia and Zimbabwe, where a railway formerly run under a single authority has been divided into two organizations. Inter-railway cooperation may be encouraged through regular meetings, as is happening under the auspices of SATCC in southern Africa. A significant action which can both improve the quality of the service provided by railways and also promote information exchange is the establishment of information systems for tracking wagons and freight. The Advance Cargo Information System (ACIS) being developed under the UNDP/UNCTAD Transit Transport Projects is an effort in this direction. 4/

46. Improving the service of the railway requires: firstly, rehabilitation of track and, sometimes, the provision of new equipment; secondly, managerial reforms and promotion of a commercial outlook; thirdly, timely allocation of foreign exchange to allow purchase of spare parts; and, fourthly, innovations which improve the service, such as border-crossing facilitation through the operation of one single, rather than two, marshalling yards at border points. The operation of block (or unit) trains also provides a means of improving service. Such block trains can be established when the railways authority and customer (or freight forwarder) enter an agreement which commits the customer to provide constant traffic volumes and efficient handling of cargo at unloading and loading points, and which commits the railways authority to supply a consistent service.

C. Ports and storage facilities

47. For goods being imported to land-locked countries from overseas, ports are often a critical bottleneck in the transport system. They can greatly increase the total transport time from origin to destination. The high dwell times of goods at ports are the result of: (a) inability of importers to raise the foreign exchange to pay for port charges and transport charges, particularly during periods of sporadic devaluations of currencies;

(b) bureaucratic delays in processing documents and clearing customs; and (c) port congestion. The efficiency of port operations depends on good management by port authorities and also adequate infrastructure. In some ports used by land-locked countries, facilities are dilapidated owing to inadequate maintenance; port operations may be inefficient. Action is required to rehabilitate and improve ports so that they can cope with modern technological changes in shipping. This is vital for both land-locked and coastal countries. For land-locked countries, it is helpful if action is taken to establish special storage areas or warehouses in ports. The location of storage facilities needs careful consideration, as an unfortunate choice might result in unnecessary handling of goods.

48. An important trend affecting worldwide shipping is the development of larger and larger container vessels, along with larger containers. One effect of this trend is that port equipment quickly becomes obsolete. A second effect is that the large vessels call at fewer ports; this is leading to a costly phenomenon whereby some ports are emerging as hubs in the international transport system; goods are then transshipped to and from other smaller ports. This trend will affect land-locked countries. Measures which direct importers and exporters to use particular ports are likely to be economically counter-productive. To take full advantage of developments associated with containerization, it is beneficial in some cases, if action were taken, and assistance given, to develop dry ports. 5/ A dry port is an inland terminal to which shipping companies issue their own import bill of lading for import cargoes and from which they issue their own bills of lading for export traffic, assuming full responsibility of liability while the goods are in transit. The use of such a through Bill of Lading simplifies procedures and reduces costs. However, for some land-locked countries, the efficiency of transit transport systems is so low that the container turnaround time required by shipping lines cannot be met In such cases, containerization cannot proceed, and dry port investments will be successful, until the whole transport system is improved.

D. Air transport

49. Air transport offers land-locked countries a means of avoiding the transit problems associated with overland and overseas freight movements. However, only very high-value, low-bulk commodities can support the costs of air freight rates. The main exports from land-locked countries by air are precious metals, high value skins, leather goods, carpets and perishable vegetables and flowers. In emergency situations, bulkier commodities are sometimes air-lifted. It is possible to achieve lower levels of air freight rates through using spare capacity on existing passenger flights. Expansion of air-cargo capacity is made difficult because of inadequate surface distribution systems, low levels of traffic and directional imbalances in freight flows. The main solutions to the problems of directional imbalance and low traffic levels are the creation of multinational regional airlines and the establishment of a hub system of feeder routes. Regional airlines which are created and run by land-locked and coastal States could benefit both parties.

E. Communications

50. Investment in telematic facilities is an area where action could be taken to improve transit transport systems. Telematics includes "conventional" telecommunication services (telephone and telex) enhanced by more recent technologies of data processing and transmission which involve the use of computers either centrally or in networks (with interlinked data bases and electronic mail). Some indication of the underdevelopment of land-locked countries with regard to communications is provided by estimates of numbers of telephones in these countries. Land-locked developing countries had in 1987 about seven telephones per 1,000 inhabitants as compared to 33 telephones per 1,000 for all developing countries as a group. 6/ Without investment in facilities, the development of institutions to operate and maintain communications systems, and the training of human resources to staff those institutions and use the new equipment, transit corridors will not work efficiently.

F. Documentation and procedures

51. One of the main causes of delays both in ports and at border crossing points is customs procedures. These often involve excessive paperwork and unwieldy formalities. There is much scope for streamlining such procedures and reducing costs, while recognizing the legitimate concerns of transit countries to ensure security. Customs control of goods in transit has two basic features: (a) security to guarantee that duty will be paid on the goods if they are directed to domestic use before the transit is completed; and (b) a method by which customs can be sure that the transit operation has been successfully completed. 7/ The guarantee is usually provided by a local bank or insurance company in the form of a transit bond. A first simplification which may be undertaken is to establish a flat rate guarantee. Where transit traffic passes through more than one country, it is important to establish a regional transit bond. This eliminates the need to establish a separate bond for each transit country.

52. The most adequate solution to ensuring that transit operations have been completed is a simple declaration which allows for the identification of goods and specifies their c.i.f. value. Often, more than one document is required for this purpose. But documentation may be streamlined through a single Road Customs Transit Declaration (RCTD), or, with the increasing use of containers and multimodal transport systems, a Multimodal Transport Customs Transit Declaration. A good alternative to a Customs Transit Declaration is a carnet, as used in accordance with the TIR (Transport International Routier) and TRIE (Transport routier inter-états) conventions. A "carnet" is a combined declaration and guarantee, the guarantee being set at a flat rate. This system needs to be encouraged. In order to ensure that guarantees are respected, it is important that physical security procedures be correctly followed. The main forms of physical security are seals and locks. A final aspect of documentation and procedures where action is required involves the streamlining of procedures of Central Banks in releasing foreign exchange for imports. It is understandable that Central Banks working under very tight

foreign exchange constraints may seek to economize as much as possible. But in the field of transit transport, inflexible procedures, coupled with a desire to direct traffic to routes or modes of transport with least foreign exchange implications can have serious cumulative effects on other sectors of the economy.

G. Management and training

53. The operational effectiveness of transit transport systems depend critically on the quality and skills of human resources. There is an acute shortage of many key managerial skills - in ports, on railways, in the road haulage industry, in telematics. Diversified training programmes, which include workshops, seminars, on-the-job training, and longer courses, are required for managers and also middle and lower-level operators. Training programmes need to be based on an evaluation of the training needs in each country, and they should encompass both coastal and land-locked countries.

H. Institutional arrangements

54. Institutional arrangements are essential for the implementation of action to reduce transit-transport problems. Two particular institutional issues call for priority attention: (a) the role of government in freight management, and (b) the formulation and implementation of bilateral or multilateral regional cooperation agreements in the field of transit transport. In many land-locked countries, governments either directly, through an agency of the Ministry of Transport, or indirectly, through the allocation of import licences by Central Banks, seek centrally to manage transit traffic. Often the institutional framework devised for this has been established in emergency periods, for instance during famines in the Sahelian zone, or the disruptions associated with armed conflict in southern Africa. During emergencies, a high level of regulation of transit traffic may be necessary. Normally the organization of freight movement is best left to clearing and forwarding agents. At the very least it is important that governments seek to set up "Users Committees", comprising representatives of freight forwarders, major transport agencies, both public and parastatal, and major importers and exporters. Such committees can provide a useful forum for exchange of information; they can quickly identify transit transport problems as they arise, as illustrated by the effectiveness of the Beira Corridor Authority and Beira Corridor Group in southern Africa.

55. At its core, the transit-transport problems faced by land-locked countries are problems of regional cooperation. Regional cooperation arrangements can involve, firstly, the promotion of integration of transport infrastructure, secondly, the harmonization of national transport policies and legislation, and, thirdly, the removal of material and non- material obstacles to trade in transport and communications services. The liberalization of trade in transport services at a regional level is an important goal. Competition between transit corridors, between transport modes, and between operators working within the same mode can provide a major incentive for reducing transit transport costs.

56. In establishing regional transit regimes, it is important that the highest priority be given to the promotion of projects from which both land-locked and transit countries stand to benefit. Some of the subregional integration groupings now in place such as ECOWAS and SADCC provide a useful framework for fostering such ventures. These subregional integration schemes also offer immense advantages in the long-run for restructuring of the trade and production patterns of the economies of land-locked developing countries. In this context, land-locked countries and their transit neighbours should extend their cooperation arrangements to other areas of trade and industry so that the dependency of land-locked countries on overseas markets can be reasonably reduced. Economic restructuring will, of course, have to take into account the potential for promoting the trade mix that reduces the transport cost disadvantages of land-locked developing countries.

IV. TRANSIT TRANSPORT CONSTRAINTS AND THE BALANCE-OF-PAYMENTS IMPLICATIONS

57. The costs, risks and uncertainties of transit transport reduce both the volume and value of land-locked countries' exports. For all economic activities in which the producers are price-takers in world markets, including most primary products of land-locked countries, the incidence of transport costs is borne by producers. High transport costs reduce the return to producers and may render certain activities non-viable. In 1988, only two land-locked countries, Swaziland and Botswana, exceeded the average value of exports per capita achieved by developing countries (excluding petroleum exporters) - $US 196 per capita. In that year, ten of the land-locked countries had exports per capita of less than $US 30. 8/ Development of new export commodities, particularly manufactured exports, is also hampered. Internationally footloose industry, associated with foreign direct investment, is seldom attracted to land-locked countries, and transport cost disadvantages can only be offset with very low wages. In this respect, coastal countries will generally have a locational advantage in manufacturing export industries. The transit transport constraint also inflates import prices because of additional transit costs.

58. A comparison of the balance-of-payments accounts of land-locked developing countries with the accounts of other developing countries indicates, inter alia, that a large proportion of the foreign-exchange earnings of land-locked developing countries is absorbed in transport payments. Statistics on payment to foreign carriers for transport services are the most readily available direct evidence of the costs that land-locked developing countries bear in any given year because of their geographical situation. Statistics on payments to foreign carriers for transport services indicate that in 1989 such payments exceeded 10 per cent of exports of goods and services in 14 land-locked countries, and in 9 such countries exceeded 25 per cent. Payments to foreign carriers for transport services absorbed 50 per cent of Malawi's exports of goods and services, 48 per cent of Chad's, 47 per cent of Uganda's, 43 per cent of Mali's and 39 per cent of Burkina Faso's. The average for all developing countries was about 6 per cent. 9/

59. These recent statistics are not abnormal and the magnitude of transport payments within the current-account balance of land-locked developing countries exposes them to a peculiar type of external shock to which other developing countries are not subject, namely a transport shock. Transport shocks occur when there are major disruptions to transport trade that increase normal shipping costs and lengthen the normal transit times and the routine delays affecting shipments. In the extreme form of such transport shocks, overland trade flows to and from land-locked developing countries are totally curtailed. Several land-locked developing countries have experienced such transport shocks which have sharply reduced the foreign exchange availabilities in these countries. The combined effect of the low level of export activity, low export prices, high import prices and foreign exchange scarcity, can easily snowball into an economic growth crisis similar to the one that many African land-locked countries have experienced in recent years.

Notes

1/ For detailed data on the recent evolution of the trade patterns of the land-locked developing countries, see tables 2-5 in the annex.

2/ C.F table 1 in annex.

3/ See hereto "PTA Study on the Possible Reduction and Elimination of Road Tolls and Co-ordination Rationalization of Road and Railway Transport", PTA/TC/TCD/VII/3, 1987.

4/ See: UNDP/UNCTAD, Report of the Symposium on Transit Transport: Issues and Prospects, Lusaka (Zambia) 1990.

5/ A dry port is defined as: "a common user facility with public authority status equipped with fixed installations and offering services for handling a temporary storage of any kind of goods carried under customs transit by an applicable mode of transport, placed under customs control and with customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export". See: UNCTAD, "Dry Ports Planning and Development", Symposium on Transit Transport Issues and Prospects, Lusaka (Zambia) March 1990.

6/ United Nations Statistical Yearbook. All figures refer to 1987 except Chad and Burkina Faso (1986) and Niger (1985).

7/ See: UNCTAD: Customs Facilitation, "Symposium on Transit Transport: Issues and Prospects", Lusaka 1990.

8/ See table 6 in the annex.

9/ See table 6 in the annex.

Table 1

Selected geographical and demographic data: land-locked developing countries

Country	Area (thousands of km^2)	Distance to the sea a/ (km)	Population					Labour force (percentage)	
			Density (population per km^2) 1989	Total (million) 1989	Average life expectancy at birth (years) 1985-1990	Infant mortality (per 1,000 live births) 1985-1990	Urban (percentage) 1988	In agriculture 1989	In industry 1987
Afghanistan	652.1	2 000-10 600	24	15.7	42	172	21	59	14 b/
Bhutan	47.0	800	32	1.5	48	128	5	91	3 b/
Bolivia	1 098.6	250-2 736	7	7.2	53	110	50	42	20 b/
Botswana	581.7	1 100-1 400	2	1.3	59	67	22	64	12
Burkina Faso	274.2	900-1 210	32	8.8	47	138	9	85	5
Burundi	27.8	1 455-1 850	191	5.3	48	119	7	91	3
Central African Republic	623.0	1 400-1 815	5	3.0	49	104	45	64	7
Chad	1 284.0	1 715-2 015	4	5.5	46	132	31	76	5
Lao People's Democratic Republic	236.8	670	17	4.0	49	110	18	72	7 b/
Lesotho	30.4	740-800	57	1.7	56	100	19	80	5
Malawi	118.5	560-700	71	8.4	47	150	14	76	9
Mali	1 240.2	1 170-1 289	7	8.9	44	169	19	81	3
Mongolia	1 566.5	..	1	2.1	61	68	51	31	21 b/
Nepal	140.8	890	131	18.4	51	128	9	92	1 b/
Niger	1 267.0	1 100-2 690	6	7.5	45	135	18	88	2
Paraguay	406.8	1 043-1 935	10	4.2	67	42	46	47	21 b/
Rwanda	26.3	1 750	265	7.0	49	122	7	91	3
Swaziland	17.4	200-500	44	0.8	56	118	30	67	10
Uganda	235.9	1 450	77	18.1	51	103	10	81	5
Zambia	752.6	2 000-2 750	10	7.8	53	80	54	69	8
Zimbabwe	390.6	592-2 000	23	9.1	58	66	27	69	10
All land-locked developing countries	11 018.1	..	13	146.3	49	121	21	76	7
All developing countries	66 336.2	..	42	2,756.0	58	97	37	55	13 b/

Source: UNCTAD secretariat calculations based on data from the Statistical Office of the Secretariat, ECLAC, ECA, FAO and the World Bank.

a/ Distance from principal towns to main ports. The figures are the shortest and longest routes used.

b/ Most recent estimates between 1985 and 1987.

Table 2

Export processing in land-locked countries and all developing countries, 1985-1986

	Export earnings from processed commodities as a proportion of earnings from exports in non-processed form (percentages)	
	Land-locked countries a/	All developing countries
Processing chains		
1. Meat, fresh - meat preparations	25.0	32.4
2. Fruit, fresh and nuts - fruit, preserved and prepared	-	40.6
3. Vegetables, fresh - vegetables, prepared	-	28.5
4. Sugar and honey - sugar confections	2.3	1.7
5. Unmanufactured tobacco - manufactured tobacco	2.8	23.6
6. Oil seeds and nuts - fixed vegetable oils	16.4	264.1
7. Hides and skins - leather	103.4	428.5
8. Wood, rough and shaped - veneer plywood	7.6	62.9
9. Raw cotton - textile yarn	3.6	154.9
10. Raw cotton - textile fabric	5.1	111.7
11. Raw cotton - clothing	13.0	949.5

Source: UNCTAD, Handbook of International Trade and Development Statistics, 1989.

a/ The sample of countries is the same as for table 4.

Table 3

Export value and purchasing power of exports of the land-locked developing countries

Country	Exports in 1988			Annual average growth rates (%) of :											
				Export value				Purchasing power of exports				Purchasing power of of exports per capita			
	Total $ million	Total % of GDP	Per capita $	1970-1980	1986-1987	1987-1988	1988-1989	1970-1980	1986-1987	1987-1988	1988-1989	1970-1980	1986-1987	1987-1988	1988-1989
Afghanistan	433	11.5	29	21.2	-7.2	-15.4	-23.8	7.9	-13.3	-19.7	-26.0	6.1	-14.4	-21.7	-28.9
Bhutan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bolivia	597	13.8	86	19.9	-11.1	4.9	36.9	6.4	-17.1	-2.2	35.5	3.8	-19.4	-4.8	31.9
Botswana	1418	70.5	1170	34.4	83.5	-10.6	-4.1	18.4	70.2	-15.3	-6.7	14.1	64.0	-18.4	-10.0
Burkina Faso	142	7.6	17	18.4	86.7	-8.4	-47.2	5.2	73.8	-13.0	-48.6	2.8	69.4	-15.3	-50.0
Burundi	129	11.8	25	17.2	-46.7	43.3	-39.5	3.3	-50.6	35.9	-41.2	1.7	-52.0	32.0	-42.9
Central African Rep.	95	8.5	33	13.4	-23.7	-5.0	-3.2	1.0	-28.3	-11.1	-5.0	-1.3	-30.2	-13.5	-7.6
Chad	141	15.4	26	14.0	12.1	27.0	-2.8	1.4	4.6	21.2	-5.6	-0.6	2.1	18.2	-8.0
Lao People's Dem.Rep.	81	15.2	21	19.1	3.3	30.6	-1.2	5.0	-4.1	23.9	-3.9	3.2	-6.7	20.5	-6.6
Lesotho	40	10.3	24	26.0	53.8	0.0	0.0	11.0	42.7	-5.2	-2.7	8.5	38.8	-7.8	-5.4
Malawi	284	23.8	35	16.4	13.5	2.2	-6.0	3.2	5.2	-2.5	-8.2	0.0	1.6	-5.9	-11.4
Mali	249	12.8	29	21.1	24.3	-2.7	8.8	7.2	15.6	-7.0	5.6	4.8	12.2	-9.8	2.5
Mongolia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nepal	194	6.3	11	9.8	10.6	24.4	-19.6	-3.2	2.7	17.9	-21.8	-5.7	0.0	14.9	-23.7
Niger	290	12.1	40	33.8	27.6	-8.5	-13.8	18.7	17.9	-9.3	-17.2	15.3	14.3	-12.1	-19.7
Paraguay	655	10.9	162	18.8	37.8	72.8	77.6	3.8	27.0	65.6	72.5	0.8	23.3	60.8	67.6
Rwanda	108	4.7	16	21.1	-39.7	-5.3	-18.5	7.5	-43.7	-11.0	-20.5	4.1	-45.6	-14.0	-23.2
Swaziland	453	74.4	613	16.0	52.1	11.8	-0.7	2.0	41.0	6.0	-3.0	-1.0	36.1	2.4	-8.1
Uganda	274	6.4	16	4.6	-19.0	-14.4	-0.4	-7.5	-24.4	-19.6	-1.6	-10.2	-27.1	-22.5	-5.2
Zambia	1178	29.5	150	3.5	116.6	34.9	14.3	-8.3	100.4	29.0	11.4	-11.1	92.7	24.3	7.5
Zimbabwe	1360	21.6	149	12.9	9.1	-4.2	-4.4	-0.7	1.1	-9.0	-6.7	-3.7	-2.1	-11.8	-9.5
All land-locked developing countries	8121	16.9	58	12.9	23.0	5.0	5.6	-0.2	14.7	-0.2	3.0	-2.6	11.5	-3.1	-0.2
All developing countries [a]	424943	23.7	196	20.7	23.7	21.7	9.9	5.4	14.1	16.9	6.2	3.0	11.7	14.5	4.0

Source: UNCTAD secretariat calculations, mainly based on *UNCTAD Handbook of International Trade and Development Statistics, Supplement 1990.*

Note: Annual average growth rates are based on an exponential trend function.

a Excluding major petroleum exporters.

Table 4

Land-locked developing countries' share of world and developing country exports of selected commodities, 1970 and 1985-1986 a/

Commodity	Exports of selected commodities of land-locked developing countries as percentage:			
	of exports of those commodities of all developing countries		of exports of those commodities of all the world	
Traditional commodities	1970	1985-86	1970	1985-86
Live animals	10.5	22.1	1.9	4.3
Meat, fresh, chilled, frozen	1.7	2.1	0.4	0.3
Meat in air-tight containers	4.6	1.6	1.2	0.4
Fruit, fresh, and nuts, fresh or dried	1.7	2.7	0.8	1.2
Dried fruit	11.5	-	5.0	-
Coffee	6.3	5.8	6.0	5.2
Tea and maté	5.2	5.0	4.6	4.2
Animal feeding stuff	1.2	1.0	0.5	0.3
Tobacco, unmanufactured	9.1	21.6	2.7	10.0
Hides and skins, undressed	5.1	7.6	1.5	0.7
Furs and skins, undressed	80.9	83.4	2.5	0.6
Oil seed, oil nuts and oil kernels	6.7	5.6	1.8	1.2
Wood, shaped	2.3	1.6	0.4	0.3
Wool and other animal hair	3.7	3.1	0.5	0.4
Cotton	6.5	15.7	4.2	7.2
Ores and concentrates of non-ferrous base metal	6.8	2.9	3.3	1.5
Non-ferrous metal scrap	20.8	1.8	2.5	0.3
Gas, natural, manufactured	11.0	5.2	2.0	1.8
Floor coverings, tapestries	5.5	6.1	1.0	1.6
Pearls, semi-precious stones	4.2	2.0	0.6	0.3
Copper	34.8	13.5	16.6	4.4
Zinc	20.5	-	3.7	-
Tin	10.2	8.2	8.9	6.9
Miscellaneous non-ferrous metals	10.2	-	1.3	-

Table 4 (continued)

Commodity	Exports of selected commodities of land-locked developing countries as percentage:			
	of exports of those commodities of all developing countries		of exports of those commodities of all the world	
New commodities	1970	1985-86	1970	1985-86
Maize, unmilled	0.1	3.7	0.0	0.7
Vegetables, fresh	1.3	1.2	0.4	0.4
Sugar and honey	0.1	1.1	0.1	0.8
Wood, rough	0.9	1.2	0.4	0.5
Other crude mineral	-	7.7	-	1.2
Silver and platinum ores	21.1	7.4	2.2	1.9
Uranium, thorium ore	-	99.1	-	27.2
Leather	-	1.8	-	0.5
Textile yarn and thread	-	0.4	-	0.1
Cotton fabrics, woven	0.3	0.7	0.1	0.2
Pig iron, etc.	-	10.0	-	2.7
Iron, steel primary forms	-	2.2	-	0.3
Iron and steel shapes	-	1.0	-	0.2
Nickle	-	49.5	-	3.1
Clothing	0.1	0.2	0.0	0.1
Special transactions	1.4	0.5	0.0	0.1

Source: UNCTAD, Handbook of International Trade and Development Statistics, 1989.

a/ The sample of countries is 13 land-locked countries. No information is available for Bhutan, Botswana, Chad, Lao People's Democratic Republic, Lesotho, Mongolia, Swaziland and Uganda. The commodities selected are the leading exports of the sample of 13 land-locked developing countries, which together account for over 90 per cent of the total exports of the group in either 1970, 1985/86 or both years. "Traditional commodities" are leading exports in 1970; "new commodities" are leading exports in 1985/86 that were of negligible significance in 1970.

Table 5

Import value and volume of the land-locked developing countries

Country	Imports in 1988			Annual average growth rates (%) of :											
				Import value				Import volume				Import volume per capita			
	Total $ million	Total % of GDP	Per capita $	1970-1980	1986-1987	1987-1988	1988-1989	1970-1980	1986-1987	1987-1988	1988-1989	1970-1980	1986-1987	1987-1988	1988-1989
Afghanistan	900	23.9	60	19.4	-29.1	-9.6	-22.2	6.3	-33.7	-14.2	-24.5	4.6	-34.5	-16.4	-27.4
Bhutan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bolivia	595	13.8	86	20.6	13.8	-22.4	3.4	7.1	6.1	-27.7	2.4	4.4	3.1	-29.6	-0.3
Botswana	1031	51.3	851	28.2	31.3	10.1	1.8	13.0	21.8	4.5	-0.9	8.9	17.3	0.6	-4.5
Burkina Faso	489	26.3	57	21.8	7.2	12.7	-16.2	8.2	-0.2	7.0	-18.4	5.8	-2.8	4.2	-20.6
Burundi	204	18.6	40	22.4	3.4	-3.8	-8.3	7.9	-4.0	-8.7	-10.8	6.2	-6.8	-11.4	-13.4
Central African Rep.	85	7.6	30	8.9	-50.4	-32.0	3.5	-3.0	-53.4	-36.4	1.6	-5.1	-54.7	-38.1	-1.2
Chad	419	45.7	78	7.5	27.1	14.5	3.8	-4.4	18.6	9.2	0.8	-6.3	15.7	6.5	-1.6
Lao People's Dem.Rep	162	30.4	41	2.4	11.5	11.0	-7.4	-9.7	3.4	5.2	-9.9	-11.2	0.6	2.3	-12.5
Lesotho	430	110.4	257	30.8	5.0	2.4	2.3	15.2	-2.6	-2.9	-0.4	12.6	-5.3	-5.6	-3.2
Malawi	409	34.2	50	17.1	15.5	37.2	23.5	3.8	7.1	31.0	20.6	0.6	3.4	26.5	16.4
Mali	513	26.4	59	23.2	-3.4	7.1	-2.5	9.0	-10.2	2.4	-5.4	6.6	-12.8	-0.7	-8.3
Mongolia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nepal	688	22.4	38	18.6	28.4	15.4	-15.7	4.5	19.2	9.5	-18.0	1.9	16.2	6.6	-20.0
Niger	375	15.6	52	27.5	12.1	1.4	-1.3	13.2	3.6	-1.7	-5.2	9.9	0.4	-4.7	-8.1
Paraguay	671	11.1	166	24.5	-19.5	13.7	3.6	8.8	-25.8	9.0	0.6	5.7	-28.0	5.8	-2.2
Rwanda	370	16.1	55	26.4	1.4	3.6	10.0	12.2	-5.3	-2.7	-12.2	8.6	-8.5	-6.0	-15.1
Swaziland	516	84.8	699	25.5	23.6	18.6	-3.1	10.4	14.6	12.7	-5.4	7.2	10.6	8.9	-8.5
Uganda	544	12.8	31	2.9	80.8	-2.0	19.9	-9.1	68.8	-8.0	18.4	-11.7	62.8	-11.3	14.1
Zambia	839	21.0	107	5.6	22.6	13.5	4.1	-6.4	13.4	8.5	1.4	-9.3	9.0	4.6	-2.2
Zimbabwe	1070	17.0	117	10.9	6.2	2.3	1.9	-2.5	-1.5	-2.8	-0.5	-5.4	-4.7	-5.9	-3.5
All land-locked developing countries	10310	21.4	74	15.8	5.5	4.5	-1.3	2.4	-2.2	-0.6	-4.0	-0.1	-5.0	-3.6	-6.9
All developing countries [a]	435306	24.2	201	21.2	20.4	20.9	11.7	5.9	11.1	16.2	7.9	3.5	8.7	13.8	5.7

Source: UNCTAD secretariat calculations, mainly based on *UNCTAD Handbook of International Trade and Development Statistics, Supplement 1990.*

Note: Annual average growth rates are based on an exponential trend function.

a Excluding major petroleum exporters.

Table 6

Payments to foreign carriers for transport service as a proportion of total exports of goods and services

	Transport payments (million dollars) 1989	Exports of goods and services: total (million dollars) 1989	Transport payments ratio (per cent) 1989	Debt service a/ ratio (per cent) 1988
Afghanistan	92.1	280.6	31.7	7.2
Bolivia	140.5	890.7	15.8	46.6
Botswana	103.0	2 174.4	4.7	5.0
Burkina Faso	66.9 b/	200.8 b/	33.3 b/	18.9
Burundi	32.1	117.4	27.3	31.2
Central African Republic	61.4 c/	197.7 c/	31.1 c/	15.5 d/
Chad	96.2	199.0	48.3	4.1
Lao People's Democratic Republic	..	81.0	..	16.9
Lesotho	21.8 e/	480.7 e/	4.5 e/	4.9
Malawi	167.3 e/	334.8 e/	50.0 e/	32.6
Mali	147.3	345.4	42.6	27.1
Nepal	39.7	382.7	10.4	9.1
Niger	42.6	368.7	11.6	43.1
Paraguay	175.7	1 506.0	11.7	19.0
Rwanda	45.6	161.6	28.2	14.1
Swaziland	11.7	674.4	1.7	7.3
Uganda	126.9 e/	272.9 e/	46.5 e/	53.4
Zambia	148.0 e/	1 244.0 e/	11.9 e/	16.3
Zimbabwe	129.2 e/	1 803.0 e/	7.2 e/	27.9
All developing countries	49 325.0	847 204.0	5.8	20.3

Source: UNCTAD secretariat, mainly based on information from the OECD secretariat, UNCTAD Handbook of International Trade and Development Statistics and the IMF.

a/ Total external including short-term and use of IMF credit.
b/ 1986.
c/ 1987.
d/ Ratio to exports of goods and services in 1987.
e/ 1988.